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**Tropical Ecology and Society
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ABSTRACTS**

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O43-10 – S43 *Free session: Human-nature interactions in tropical landscapes*
Wednesday 22 June / 08:30-12:00 – Antigone I

How do indigenous hunters of the Colombian Amazon resolve trade-offs between conservation and development?

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Understanding the forces that drive decision-making by stakeholders is a crucial aspect in developing successful strategies for natural resource management. Empirical knowledge is only one of these drivers, as practices are also decided by individuals' beliefs, perceptions and interests, by the assets available and the institutions and norms dictating what is acceptable. Uncovering the underlying reasons for individual management decisions thus requires integrated approaches, and is particularly relevant to ensure the engagement of local communities and the effective implementation of community-based initiatives.

Throughout the Colombian Amazon communities carry out subsistence as well as small-scale commercial bushmeat hunting. Overharvesting, together with habitat loss, poses a dual threat to biodiversity and to the people who depend on it for food and income: the hunters and their families. Having empirical knowledge and being aware of the high stakes if the resource crashes, hunters might have developed effective strategies for game management. Given this, we wanted to explore how hunters perceive and handle the well-known trade-off between biodiversity conservation and socio-economic development, particularly in the context of the Ticoya indigenous reserve in the Colombian Amazon.

To this end, we used ReHab, a role-playing game that revolves around the management of a renewable resource. Players are either Harvesters that need to feed their families using the resource, or Park Managers seeking to protect a migratory bird sensitive to resource level and human disturbance. ReHab allows players to explore the concepts of natural resource management and sustainability when dealing with conflicting agendas and partial knowledge. The game has been played in multiple occasions in different contexts, creating a benchmark against which to compare sessions played within the culturally homogeneous group of the Ticoya hunters. We found a positive effect of communication and monitoring on the outcome indicators of conservation and development measured during the game sessions. Incomplete information and the lack of enforcement power did not prevent players to successfully resolve the trade-off and satisfy their contrasting agendas. Acknowledging the gains and losses imbedded in the decision-making process results in better designed and more resilient co-management strategies that take into account the individual and local communities' perceptions and expectations.

O43-11 – S43 *Free session: Human-nature interactions in tropical landscapes*
Wednesday 22 June / 08:30-12:00 – Antigone I

What affects the occurrence of the golden-headed lion tamarin, *Leontopithecus chrysomelas*, in Brazilian cocoa agroforests?

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The occurrence of a species in different habitats may depend on factors such as those related to climate, vegetation structure and ecological interactions. The golden-headed lion tamarin (GHLT), *Leontopithecus chrysomelas*, is an endangered primate from Brazilian Atlantic Forest. The most preserved part of its range is currently dominated by shaded cocoa agroforest (cabruca), which makes urgent to understand what affects its occurrence in this habitat to ensure its conservation. Cabruca can sustain a high faunal biodiversity despite being structurally simplified in comparison to forests, but the intensification of management by decreasing the shading tree density is a threat to such biodiversity. GHLTs can survive and reproduce in this habitat, otherwise exposed to a high predation risk (predator-prey encounter rates) mainly by raptors. We investigated the role of predators and vegetation structure for the presence and density of GHLTs in cabruca. The following sampling methods were applied in 16 cabruca within the species' range, in South Bahia, Brazil: playback and active search for GHLTs, camera traps for terrestrial predators and a combination of active search, playback and point counts for aerial predators. Seven plots of 200m² were established in each area to characterize the vegetation (e.g. connectivity, the number and density of trees, and other variables). The GHLT was recorded in 10 of 16 cabruca and a total of seven species of carnivores (three potential predators) and 23 raptors (13 potential predators) were recorded in all areas. Linear generalized models revealed a positive correlation between the presence of GHLTs and height/connectivity of trees and between the density of GHLTs and vine density. Although predators seem not decisive for the GHLT's occurrence in this habitat, a positive correlation between raptors' diversity and height/connectivity of trees may explain the high predation risk in cabruca. GHLTs and raptors seem to choose similar places to use in this habitat and the consequences of this on future mortality rates due to predation remains unknown. The occurrence and density of the GHLT in cabruca seems to be better explained by vegetation structural complexity so that the intensification of management in plantations poses another threat for GHLTs.